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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,788	04/18/2001	Renduan Zhao	14512	9956

7590 08/29/2003

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EXAMINER
STRICKLAND, JONAS N

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/837,788	ZHAO ET AL.
Examiner	Art Unit	
Jonas N. Strickland	1754	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 June 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 3-9 and 11-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 17 is/are allowed.

6) Claim(s) 3-5,7-9,11 and 14-16 is/are rejected.

7) Claim(s) 6, 12, and 13 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 05 June 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) Other: _____

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DETAILED ACTION

Response to Amendment

1. This Detailed Action is in response to the amendment and the drawings filed on 6/5/03 as Paper Nos. 7 and 8. Claims 1, 2, and 10 have been cancelled. Claims 15-17 are newly added claims. No new matter has been added to the claims. Claims 3-9 and 11-17 are currently pending.

Drawings

2. The drawings were received on 6/5/03. These drawings are approved.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3-5, 7-9, 11, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Bonneville et al. (US Patent 5,034,117).

De Bonneville et al. discloses a process for regenerating a catalyst for the production of aromatic hydrocarbons or for reforming. The regeneration process is characterized in that the exhausted catalyst successively meets a first radial moving bed combustion zone (101), a second radial moving bed combustion zone (105), an axial oxychlorination bed zone (107), and an axial calcination moving bed (116) (see abstract). De Bonneville et al. continues to disclose wherein the regeneration gas is recirculated through the first and second combustion zones (sol. 5, lines 3-35). Therefore, the first coke-burning zone is contacted with the regeneration gas from the second coke-burning zone. It would have been obvious to one of ordinary skill in the art

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to contact deactivated catalyst particles in the first coke-burning zone with the regeneration gas from the second coke-burning zone, since De Bonneville teaches wherein the regeneration gas is recycled.

De Bonneville et al. continues to disclose wherein the catalyst circulates under the effect of gravity (col. 4, lines 4-6). De Bonneville et al. also discloses a drying zone with respect to claim 2, (col. 6, line 38). With respect to claims 3 and 4, it would have been anticipated for the regeneration gas to move in a centrifugal or centripetal manner, because De Bonneville et al. discloses wherein the coke-burning combustion zones have a radial moving bed. With respect to claim 5, De Bonneville et al. discloses wherein the pressure may be operated at low pressures, which include being lower than 10 bars and being in particular between 3 and 8 bars or even lower (col. 3, lines 1-4). With respect to claim 7, the oxygen volume is from 0.01-1.0 vol.% (col. 6, lines 15-17). With respect to claims 8 and 9, the first reactor is operated at a temperature of 350-450°C (col. 6, line 2) and the second zone may be operated at a temperature of 60-80°C higher than the first zone (col. 6, lines 45-50).

Response to Arguments

8. Applicant's arguments with respect to claims 3-9 and 11-17 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claim 17 is allowed.

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10. Claims 6, 12, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: The cited prior art does not recite wherein the regeneration gas enters the second coke-burning zone has a water content of 10-200 ppmv.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N. Strickland whose telephone number is 703-306-5692. The examiner can normally be reached on M-TH, 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0661.

Jonas N. Strickland
August 25, 2003



STEVEN BOS
PRIMARY EXAMINER
GROUP 1100